

## General

### Title

Advanced chronic kidney disease (CKD): percent of patients referred for surgery for construction of an arteriovenous (AV) fistula on index date.

### Source(s)

Renal Physicians Association. Appropriate patient preparation for renal replacement therapy. Rockville (MD): Renal Physicians Association; 2002 Oct 1. 78 p. (Clinical Practice Guideline; no. 3).

## Measure Domain

### Primary Measure Domain

#### Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

### Secondary Measure Domain

Does not apply to this measure

## Brief Abstract

### Description

This measure assesses the percent of patients referred for surgery for construction of an arteriovenous (AV) fistula on index date (i.e., the date patient is first seen by practitioner and identified as having advanced advanced chronic kidney disease [CKD]) among patients with advanced CKD for whom hemodialysis is the chosen mode of renal replacement therapy.

### Rationale

Utilizing conventional criteria for the initiation of renal replacement therapy (RRT), such as congestive heart failure, malnutrition, acidosis or uremia, can lead to patients being treated only when they have already suffered irreversible cumulative complications from chronic kidney disease (CKD). It is therefore

imperative to properly time the initiation of RRT in order to minimize morbidity and mortality. The role of patient factors such as therapeutic preferences is also considered especially important in timing, initiation, and choice of modality of RRT.

Patients and healthcare professionals should be educated about the need to preserve veins to avoid loss of potential access sites. Repeated venipuncture for vascular access may render arm vein sites unsuitable for construction of a primary arteriovenous (AV) fistula. In addition, subclavian vein catheterization should be avoided for temporary access due to the risk of central venous stenosis.

## Primary Clinical Component

Advanced chronic kidney disease; arteriovenous fistula; surgery

## Denominator Description

The number of adult patients with advanced chronic kidney disease (CKD) not currently receiving renal replacement therapy (RRT) for whom hemodialysis is the chosen mode of RRT

## Numerator Description

The number of patients from the denominator referred for surgery for construction of an arteriovenous (AV) fistula on index date (i.e., the date patient is first seen by practitioner and identified as having advanced advanced chronic kidney disease [CKD])

## Evidence Supporting the Measure

### Evidence Supporting the Criterion of Quality

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences

A systematic review of the clinical literature

## Evidence Supporting Need for the Measure

### Need for the Measure

Unspecified

## State of Use of the Measure

### State of Use

Pilot testing

## Current Use

Internal quality improvement

## Application of Measure in its Current Use

### Care Setting

Ambulatory Care

Physician Group Practices/Clinics

### Professionals Responsible for Health Care

Physicians

### Lowest Level of Health Care Delivery Addressed

Individual Clinicians

### Target Population Age

Age greater than or equal to 18 years

### Target Population Gender

Either male or female

### Stratification by Vulnerable Populations

Unspecified

## Characteristics of the Primary Clinical Component

### Incidence/Prevalence

Unspecified

### Association with Vulnerable Populations

Unspecified

### Burden of Illness

Unspecified

## Utilization

Unspecified

## Costs

Unspecified

# Institute of Medicine (IOM) Healthcare Quality Report Categories

## IOM Care Need

Living with Illness

## IOM Domain

Effectiveness

Patient-centeredness

## Data Collection for the Measure

## Case Finding

Users of care only

## Description of Case Finding

Adult patients 18 years and older with advanced chronic kidney disease (CKD) for whom hemodialysis is the chosen mode of renal replacement therapy (RRT)

## Denominator Inclusions/Exclusions

### Inclusions

Adult patients age 18 years and older with chronic kidney disease stage 4 or 5 (glomerular filtration rate [GFR] less than or equal to 30 mL/min/1.73 m<sup>2</sup>), not currently receiving renal replacement therapy, for whom hemodialysis is the chosen mode of renal replacement therapy (RRT)

### Exclusions

Unspecified

## Relationship of Denominator to Numerator

All cases in the denominator are equally eligible to appear in the numerator

## Denominator (Index) Event

Clinical Condition

Therapeutic Intervention

## Denominator Time Window

Time window precedes index event

## Numerator Inclusions/Exclusions

Inclusions

The number of patients from the denominator referred for surgery for construction of an arteriovenous (AV) fistula on index date (i.e., the date patient is first seen by practitioner and identified as having advanced chronic kidney disease [CKD])

Exclusions

Unspecified

## Measure Results Under Control of Health Care Professionals, Organizations and/or Policymakers

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

## Numerator Time Window

Episode of care

## Data Source

Administrative data

Laboratory data

Medical record

## Level of Determination of Quality

Individual Case

## Pre-existing Instrument Used

Unspecified

## Computation of the Measure

## Scoring

Rate

## Interpretation of Score

Better quality is associated with a higher score

## Allowance for Patient Factors

Unspecified

## Standard of Comparison

Internal time comparison

# Evaluation of Measure Properties

## Extent of Measure Testing

Unspecified

# Identifying Information

## Original Title

Number of patients referred for surgery for construction of an AV fistula on index date / number of patients with advanced CKD for whom hemodialysis is the chosen mode of RRT.

## Measure Collection Name

Renal Physicians Association Clinical Performance Measures on Appropriate Patient Preparation for Renal Replacement Therapy

## Measure Set Name

Clinical Performance Measures for Timing of Renal Replacement Therapy Recommendations

## Submitter

Renal Physicians Association - Medical Specialty Society

## Developer

Renal Physicians Association - Medical Specialty Society

## Funding Source(s)

Ortho Biotech Products, LP

## Composition of the Group that Developed the Measure

W. Kline Bolton, MD, Working Group Chair, University of Virginia School of Medicine, Charlottesville, VA; William F. Owen, Jr., MD, President, RPA, Duke University School of Medicine Durham, NC; Baxter Healthcare Corp., McGaw Park, IL; Dale Singer, MHA, Executive Director, RPA.

*Content Experts:* Jack Coburn, MD, UCLA School of Medicine, West Los Angeles V.A. Healthcare Center, West Los Angeles, CA; William Haley, MD, Mayo Clinic, Jacksonville, FL; Annamaria Kausz, MD, New England Medical Center, Boston, MA; Adeera Levin, MD, St. Paul's Hospital, Vancouver, BC; William Mitch, MD, University of Texas Medical Branch, Galveston, TX; Patricia Painter, PhD, University of California, San Francisco, CA; Michael Rocco, MD, MSCE, Wake Forest University School of Medicine, Winston-Salem, NC.

*Association Representatives:* Carolyn Atkins, RN, BS, CCTC, National Kidney Foundation, Medical City Dallas Hospital, Dallas, TX; Shelley Clark, RN, National Renal Administrators Association, FMC North Roanoke Dialysis, Roanoke, VA; Paul Eggers, PhD, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), Bethesda, MD; Lori Fedje, RD, LD, NKF Council on Renal Nutrition, Pacific Northwest Renal Services, Portland, OR; Richard Goldman, MD, Renal Physicians Association, Renal Medicine Associates, Emeritus Albuquerque, NM; Joel Greer, PhD, Centers for Medicare and Medicaid Services, Baltimore, MD; Richard Lafayette, MD, American Society of Nephrology, Stanford University School of Medicine, Stanford, CA; Eugene Z. Oddone, MD, American College of Physicians - American Society of Internal Medicine, Durham VA Medical Center, Durham, NC; Victoria Norwood, MD, American Society of Pediatric Nephrology, University of Virginia, Charlottesville, VA; Paul M. Palevsky, MD, Forum of ESRD Networks, University of Pittsburgh School of Medicine, VA Pittsburgh Health Care System, Pittsburgh, PA; Sandy Peckens, MSW, NKF Council of Nephrology Social Workers, Merrimack Valley Nephrology, Methuen, MA; Venkateswara Rao, MD, American Society of Transplantation, Hennepin County Medical Center, Minneapolis, MN; Charlotte Thomas Hawkins, PhD, RN, CNN, American Nephrology Nurses Association, Rutgers, The State University of New Jersey, Burlington, NJ; Joseph White, American Association of Kidney Patients.

*Methodologists:* David B. Matchar, MD, FACP, Director, Duke Center for Clinical Health Policy Research and Co-Director, Duke Evidence-based Practice Center, Durham, NC; Douglas C. McCrory, MD, MHS, Co-Director Duke Evidence-based Practice Center, Durham, NC; Joseph A. Coladonato, MD, Duke Institute of Renal Outcomes Research & Health Policy, Durham, NC; Preston S. Klassen, MD, MHS, Duke Institute of Renal Outcomes Research & Health Policy, Durham, NC; Meenal B. Patwardhan, MD, MHSA, Duke Center for Clinical Health Policy Research and Duke Evidence-based Practice Center, Durham, NC; Donal N. Reddan, MD, MHS, Duke Institute of Renal Outcomes Research & Health Policy, Durham, NC; Olivier T. Rutschmann, MD, MPH, Duke Center for Clinical Health Policy Research, Durham, NC; William S. Yancy, Jr., MD, MHS, Duke University Medical Center, Durham, NC.

*Medical Editor:* Rebecca N. Gray, DPhil, Duke Evidence-based Practice Center, Durham, NC.

*Project Manager and Editor:* Emily G. Shurr, MA, Duke Evidence-based Practice Center, Durham, NC.

## Financial Disclosures/Other Potential Conflicts of Interest

There were none disclosed.

## Adaptation

Measure was not adapted from another source.

## Release Date

2002 Oct

## Measure Status

This is the current release of the measure.

## Source(s)

Renal Physicians Association. Appropriate patient preparation for renal replacement therapy. Rockville (MD): Renal Physicians Association; 2002 Oct 1. 78 p. (Clinical Practice Guideline; no. 3).

## Measure Availability

The individual measure, "Number of patients referred for surgery for construction of an AV fistula on index date / number of patients with advanced CKD for whom hemodialysis is the chosen mode of RRT," is published in "Renal Physicians Association Clinical Practice Guideline #3: Appropriate Patient Preparation for Renal Replacement Therapy."

For more information, contact RPA at 1700 Rockville Pike, Suite 220, Rockville, MD 20852; phone: 301-468-3515; fax: 301-468-3511; Web site: [www.renalmd.org](http://www.renalmd.org) ; e-mail: [rpa@renalmd.org](mailto:rpa@renalmd.org).

## NQMC Status

This NQMC summary was completed by ECRI on May 23, 2003. The information was verified by the Renal Physicians Association on June 17, 2003.

## Copyright Statement

This NQMC summary is based on the original measure, which is subject to the measure developer's copyright restrictions.

For more information, contact RPA at 1700 Rockville Pike, Suite 220, Rockville, MD 20852; phone: 301-468-3515; fax: 301-468-3511; Web site: [www.renalmd.org](http://www.renalmd.org) ; e-mail: [rpa@renalmd.org](mailto:rpa@renalmd.org).

## Disclaimer

### NQMC Disclaimer

The National Quality Measures Clearinghouse<sup>®</sup> (NQMC) does not develop, produce, approve, or endorse the measures represented on this site.

All measures summarized by NQMC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public and private organizations, other government agencies, health care organizations or plans, individuals, and similar entities.

Measures represented on the NQMC Web site are submitted by measure developers, and are screened solely to determine that they meet the [NQMC Inclusion Criteria](#).

NQMC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or its reliability and/or validity of the quality measures and related materials represented on this site. Moreover, the views and opinions of developers or authors of measures represented on this site do not necessarily state or reflect those of NQMC, AHRQ, or its contractor, ECRI Institute, and inclusion or



hosting of measures in NQMC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding measure content are directed to contact the measure developer.